

# **A Novel Mixed-Mode OTA-C Universal Filter**

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## **Summary**

A novel mixed-mode biquad circuit is presented. The circuit uses six single-output and one dual-output-operational transconductance amplifiers, two grounded capacitors; and can realize lowpass, highpass, bandpass, notch, lowpass-notch, highpass-notch and allpass responses from the same topology. The circuit can be driven by voltage or current and its output can be voltage or current. The parameters  $\omega(o)$  and  $\omega(o)/Q(o)$  enjoy independent electronic tunability. Simulation results are included.

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